

Remarks

Applicant appreciates the Examiner's indication that claims 6, 9, 11, 19, 22, 24, 27, 28, 35, 38, 40, 48, 51, 53, and 55-58 are directed to allowable subject matter. Additionally, In the Office Action of April 25, 2005, the Examiner objected to the disclosure based on informalities; rejected claims 1, 4, 5, 7, 14, 17, 18, 20, 30, 33, 34, 36, 43, 46, 47, and 49 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,513,108 to Kerr et al. ("Kerr"); and rejected claims 2, 3, 8, 10, 12, 13, 15, 16, 21, 23, 25, 26, 29, 31, 32, 37, 39, 41, 42, 44, 45, 50, 52, and 54 under 35 U.S.C. § 103(a) based on Kerr and further in view of U.S. Patent No. 6,667,984 to Chao et al. ("Chao").

By this Amendment, Applicant proposes amending the specification to correct minor errors. Claims 1, 4-12, 14, 17-21, 23-28, 30, and 33-41 have been amended to improve form or more appropriately define the invention. Claims 2, 3, 15, 16, 31, 32, and 43-58 have been canceled without prejudice or disclaimer.

Claims 1, 4, 5, 7, 14, 17, 18, 20, 30, 33, 34, 36, 43, 46, 47, and 49 were rejected under 35 U.S.C. § 102(b) based on Kerr. Applicant notes that the rejection of claims 43, 46, 47, and 49 are obviated by virtue of their cancellation. Applicant respectfully traverses the rejection of the non-cancelled claims.

Claim 1, as amended, is directed to a method of arbitrating in a packet exchanger that includes input buffers temporarily storing packets, and a packet switch which switches packets between input ports and output ports. The method includes receiving a first plurality of sequences, each of the first plurality of sequences including cells that make up a packet; concurrently processing the

first plurality of sequences to select output ports to correspond to the input ports, the selections being made among output ports that have not been selected to correspond to an input port; and assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another.

Kerr discloses a programmable processing engine for processing transient data within a computer network. (Kerr, Abstract). The processing engine includes an array of symmetrically arranged processing elements. (Kerr, Abstract). In Fig. 2, Kerr discloses a switch 200 that includes an arbiter 255. Arbiter 255 implements an arbitration policy over incoming data before the data reaches arrayed processing engine 300. (See Kerr, col. 7, lines 31-34).

Applicant submits that Kerr fails to disclose or suggest many of the features recited in amended claim 1. Kerr, for example, fails to disclose or suggest, as recited in claim 1, "concurrently processing the first plurality of sequences to select output ports to correspond to the input ports, the selections being made among output ports that do not correspond to an input port." Although Kerr discloses an arbiter 255 and selector circuit 250 that may receive data simultaneously from multiple interface cards 240, (see Kerr, Fig. 2 and col. 6, line 61 through col. 7, line 12), neither arbiter 255 nor selector circuit 250 of Kerr are disclosed or suggested as concurrently processing a first plurality of sequences to select output ports to correspond to the input ports, the selections being made among output ports that do not correspond to an input port, as recited in claim 1. Instead, functions performed by selector circuit 250 and

arbiter 255 are specifically described by Kerr in col. 7, lines 31-42. In this section of Kerr, Arbiter 255 is described as, for instance, "implementing a fair arbitration policy to control multiplexing of data among the port channels and to synchronize data transfers over a time division multiplexed (TDM) bus 215." Arbiter 255 does not, however, arbitrate to concurrently process a first plurality of sequences, as recited in claim 1.

In various portions of the rejection of claim 1, on page three of the Office Action, the Examiner additionally points to input header buffer 700 (Fig. 3 of Kerr) and queuing unit 210 as being relevant to features recited in the previous version of claim 1. Applicant submits that neither the disclosure relating to these elements of Kerr, nor any other section of Kerr, discloses or suggests, as recited in claim 1, concurrently processing a first plurality of sequences to select output ports to correspond to the input ports, the selections being made among output ports that have not been selected to correspond to an input port.

Amended claim 1 further recites "assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another." In rejecting a feature related to this that was recited in the previous version of claim 1, the Examiner cited Fig. 6 and column 11, lines 3-22 of Kerr as being relevant. (Office Action, page 3). Applicant respectfully disagrees with this interpretation of Kerr. Fig. 6 of Kerr and the corresponding description describe the pipelined aspect of arrayed processing engine 300 of Kerr. Nothing in this section of Kerr, however, discloses or suggests receiving the first plurality of the sequences recited in claim 1 and assigning the packet in

each of the first plurality of sequences to be output through output ports at different times from one another.

For at least these reasons, Applicant submits that Kerr does not disclose or suggest each of the features recited in amended claim 1. Accordingly, the rejection of claim 1 should be withdrawn. The rejection of claims 4, 5, and 7, at least by virtue of their dependency on claim 1, should also be withdrawn.

Independent claim 14 is directed to an arbiter circuit for arbitrating for a packet exchanger. The arbiter circuit includes input buffers for temporarily storing packets having arrived at input ports and a packet switch which switches a packet between a specific input port and a specific output port. The arbiter circuit concurrently processes a first plurality of sequences, each sequence including cells that make up a packet, to select output ports to correspond to the input ports, the selections being made among output ports that have not been selected to correspond to an input port; and assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another.

Applicant submits that Kerr does not disclose or suggest the features of amended claim 14. As discussed above, Kerr, for instance, does not disclose or suggest structure for concurrently processing a first plurality of sequences, each sequence including cells that make up a packet, to select output ports to correspond to the input ports, the selections being made among output ports that do not correspond to an input port, as recited in claim 14. Further, Kerr does not disclose or suggest assigning the packet in each of said first plurality of

sequences to be output through the output ports at different times from one another. Accordingly, the rejection of this claim should be withdrawn.

At least by virtue of their dependency from claim 14, Applicant submits that Kerr also fails to disclose or suggest the features recited in dependent claims 17, 18, and 20, and the rejections of these claims should also be withdrawn.

Based on rationale similar to that given above with regard to claims 1 and 14, Applicant submits Kerr also does not disclose or suggest each of the features of amended independent claim 30. Thus, the rejection of this claim should be withdrawn. At least by virtue of their dependency from claim 30, Applicant submits that the rejection of dependent claims 33, 34, 36 should also be withdrawn.

Claims 2, 3, 8, 10, 12, 13, 15, 16, 21, 23, 25, 26, 29, 31, 32, 37, 39, 41, 42, 44, 45, 50, 52, and 54 were rejected under 35 U.S.C. § 103(a) based on Kerr and Chao. Applicant respectfully traverses this rejection.

Applicant notes that the rejection of claims 2, 3, 15, 16, 31, 32, 44, 45, 50, 52, and 54 are obviated by virtue of their cancellation. Although claims 2, 3, 15, 16, 31, and 32 have been canceled, Applicant notes that certain features of these claims are included in amended independent claims 1, 14, and 30. Accordingly, Applicant will address the combination of Kerr and Chao as applied to independent claims 1, 14, and 30.

Regarding claim 1, Applicant submits that Chao does not cure the above-noted deficiencies of Kerr. For example, Chao, as with Kerr, does not disclose or suggest a method that includes “concurrently processing the first plurality of

sequences to select output ports to correspond to the input ports, the selections being made among output ports that have not been selected to correspond to an input port; and assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another.”

The Examiner cites column 16, lines 10-24 and 41-34 of Chao as allegedly disclosing the features previously recited in claim 2. (Office Action, page 11). These sections of Chao describe arbitration techniques in which input ports send requests to output ports, and in which the input ports may in turn receive back grant signals granting the requests. Nothing in these sections of Chao, or in any other section of Chao, however, discloses or suggests the above-quoted features of claim 1. That is, Chao does not process a first plurality of sequences to select output ports to correspond to the input ports, the selections being made among output ports that do not correspond to an input port, as recited in claim 1. Further, Chao does not disclose or suggest assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another, as is also recited in claim 1.

The Examiner cites column 15, lines 23-38, column 16, lines 10-33, and column 19, lines 11-19 of Chao as allegedly disclosing the features previously recited in claim 3. (Office Action, page 12). Applicant has reviewed these sections of Chao, and submit that nothing in these sections of Chao, or in any other section of Chao, however, discloses or suggests the features recited in amended claim 1, including: “concurrently processing the first plurality of sequences to select output ports to correspond to the input ports, the selections

being made among output ports that have not been selected to correspond to an input port; and assigning the packet in each of said first plurality of sequences to be output through the output ports at different times from one another.”

For at least these reasons, Applicant submits that neither Kerr nor Chao, either alone or in combination, disclose or suggest each of the features of amended claim 1. At least by virtue of their dependency from claim 1, Applicant submits that Kerr and Chao, either alone or in combination, also fail to disclose or suggest the features recited in claims 8, 10, 12, and 13.

Based on rationale similar to that give above with regard to claim 1, Applicant submits that neither Kerr nor Chao, either alone or in combination, disclose or suggest each of the features of amended independent claims 14 and 30. At least by virtue of their dependency from claim 1, Applicant submits that Kerr and Chao, either alone or in combination, also fail to disclose or suggest the features recited in claims 21, 23, 25, 26, 29, 37, 39, 41, and 42.

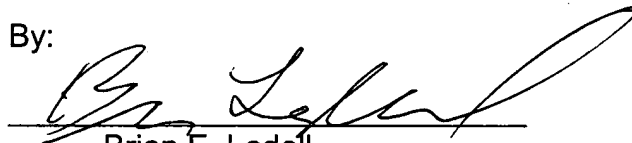
In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner’s reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 CFR 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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By:

A handwritten signature in black ink, appearing to read "Brian E. Ledell", is written over a horizontal line.

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